Medications

Diabetes medications

The first way to treat type 2 diabetes is often meal planning, weight loss, and exercise. Often these steps are not enough to bring your A1C, blood pressure, or cholesterol to a healthy range. The next step is taking medication. Even if you are meeting your goals, medications may be recommended due to their ability to reduce potential diabetes complications like heart attacks and strokes.

Your diabetes care team will work with you to decide which medication is right for you. This depends on:

- ☐ Your lifestyle
- ☐ Physical condition
- ☐ How you respond to the medication
- ☐ Insurance coverage

There are different types, or classes, of drugs that work in different ways to lower blood glucose.

Combination therapy

Because the medications starting on page 26 act in different ways to lower blood glucose levels, they may be used together. For example, a biguanide and a SGLT-2 inhibitor may be used together. Some treatment combinations are made into a single pill or injectable for convenience.

Insulin

There are different types of insulin that vary in how quickly they lower blood glucose levels. Some work very quickly and are taken with meals. Others are long-acting and are used just once or twice a day.

What if my blood glucose stays too high?
If your blood glucose levels stay too high, your medication may need to be adjusted. Do not adjust your medication on your own. Talk to your doctor about possible changes.

Important note

The generic names and brand names are shown to help you know what you take. The ADA does not recommend or endorse any specific medication.

You might take a medication that is not on this list. Your diabetes care team is your best source of information. Talk to them about all the medications you take. Never stop taking a medication or change your dose without talking with your diabetes care team.

Aspirin

If you are at high risk for or if you have heart disease, taking a low dose aspirin every day may help. Aspirin can also help people who have had a heart attack or stroke. Ask your doctor whether you should take aspirin.

Blood pressure medications

Not everyone takes the same blood pressure medicine. Many people take two or more medications. The ones you take will depend on your blood pressure and other factors.

Cholesterol medications

Most adults with diabetes who are 40 years or older should be taking a statin. Statins help lower LDL levels and reduce your risk for heart attack or stroke.

There are other medications that improve cholesterol. Ask your doctor about whether you should take a statin or other drug to lower your risk for heart attack or stroke.

Although previously recommended for cholesterol control, we no longer recommend the use of niacin.

Diabetes and pregnancy

If you're pregnant, talk with your doctor about what medications are right for you.

Medications (Continued)

DIABETES MEDICATIONS				
DRUG CLASS	**TYPE**	**GENERIC NAME**	**BRAND NAME**	**COST***
Alpha-Glucosidase Inhibitors Block the breakdown of starches, such as potatoes and pasta in intestine.	Oral	meglitol	Glyset	Moderate
		acarbose	Precose	Low
Amylin Slows food moving through the stomach.	Injected	pramlintide	Symlin	High
Biguanides Decrease amount of glucose produced by the liver.	Oral	metformin	Available as generic only	Low
		metformin extended release	Glumetza	
Bile Acid Sequestrants Lower cholesterol and blood glucose levels.	Oral	colesevelam	Welchol	Moderate
Dopamine-2 Agonists Help lower blood glucose levels after a meal.	Oral	bromocriptine (quick release)	Cycloset	High
DPP-4 Inhibitors Prevent breakdown of GLP-1, a compound in the body that lowers blood glucose levels.	Oral	alogliptin	Nesina	High
		linagliptin	Tradjenta	
		saxagliptin	Onglyza	
		sitagliptin	Januvia	
GLP-1 Receptor Agonists Helps release insulin when blood glucose is high and lower the amount of glucose produced by the liver.	Injected	dulaglutide	Trulicity	High
		exenatide	Byetta	
		exenatide extended release	Bydureon	
		liraglutide	Victoza	
		lixisenatide	Adlyxin	
		semaglutide	Ozempic	
	Oral	semaglutide	Rybelsus	
Meglitinides Help beta cells in pancreas release more insulin.	Oral	nateglinide	Starlix	Moderate
		repaglinide	Prandin	
SGLT2 Inhibitors Blocks glucose from being reabsorbed in the kidney.	Oral	canagliflozin	Invokana	High
		dapagliflozin	Farxiga	
		empagliflozin	Jardiance	
		ertugliflozin	Steglatro	
Sulfonylureas Help beta cells in pancreas release more insulin.	Oral	glimepiride	Amaryl	Low
		glipizide	Glucotrol/Glucotrol XL	
		glyburide/glibenclamide	Micronase/Glynase/Diabeta	
TZDs Help insulin work better in muscle and fat. Lower glucose production in liver.	Oral	pioglitazone	Actos	Low

*Cost is based on the lowest-price drug in its class.
**The sulfonylureas chlorpropamide (Diabinese) and tolazamide and the TZD rosiglitazone (Avandia) are available but rarely prescribed.

INSULIN		
INSULIN TYPE*	**GENERIC NAME**	**BRAND NAME**
Rapid-Acting Onset: about 15 minutes Peak: about 1 or 2 hours after injection Duration: last between 2–4 hours	aspart	Fiasp
		NovoLog
	glulisine	Apidra
	lispro	Admelog
		Humalog
		Lyumjev
Regular- or Short-Acting Onset: about 30 minutes Peak: about 2 to 3 hours after injection Duration: last between 3–6 hours	human regular	Humulin R
		Novolin R
Intermediate-Acting Onset: about 2 to 4 hours after injection Peak: 4 to 12 hours later Duration: it is effective for about 12 to 18 hours	human nph	Humulin N
		Novolin N
		ReliOn
Long-Acting or Basal Insulin Analogs **Ultra Long-Acting** Onset: between 2 and 6 hours Peak: continuous, "peakless" action that acts the way your body normally releases insulin Duration: tend to lower glucose levels up to 24 hours or longer	degludec	Tresiba
	detemir	Levemir
	glargine	Basaglar
		Lantus
	glargine u-300	Toujeo
Inhaled Insulin Onset: Within 12 to 15 minutes Peak: 30 minutes Duration: Out of your system in 180 minutes Note: Must be used with injectable long-acting insulin in patients with type 1 diabetes and in type 2 diabetes patients who use long-acting insulin.	technosphere insulin-inhalation system	Afrezza

*Costs for insulin vary due to types and doses.

COMMON BLOOD PRESSURE MEDICATIONS
DRUG CLASS
ACE Inhibitors Lower blood pressure by keeping your blood vessels relaxed. ACE inhibitors prevent a hormone from forming in your body and narrowing your blood vessels. They also help protect your kidneys and reduce your risk of heart attack and stroke.
ARBs Keep the blood vessels open and relaxed to help lower blood pressure. Like ACE inhibitors, ARBs also protect your kidneys.
Beta Blockers Help lower blood pressure and relax your heart by allowing it to beat slower and with less force. Beta blockers help prevent heart attack and stroke.
Calcium Channel Blockers Help the blood vessels relax by keeping calcium out of your blood vessels and heart.
Diuretics Help rid your body of extra water and sodium through urine. Sometimes called "water pills."

CHOLESTEROL MEDICATIONS
DRUG CLASS
Statins
Cholesterol absorption inhibitor
PCSK9 Inhibitor
Fibrates
Omega-3 fatty acids
Bile acid sequestrants